

REMARKS

Claims 1, 3, 9, 11, 18-20, 22, 24, 29, 31, 37, 39, 45, and 51 are amended, no claims are canceled, and claims 61-64 are added; as a result, claims 1-64 are now pending in this application.

No new matter has been added through the amendments to claims 1, 3, 9, 11, 18-20, 22, 24, 29, 31, 37, 39, 45, and 51. Support for the amendments to claims 1, 3, 9, 11, 18-20, 22, 24, 29, 31, 37, 39, 45, and 51 may be found throughout the specification, including but not limited to the specification at page 6, line 5 through page 11, line 12, and in FIG. 1, FIG. 2, and FIG. 3.

No new matter has been added through new claims 61-64. Support for new claims 61-62 may be found throughout the specification, including but not limited to the specification on page 2, lines 15-22. Support for new claims 63-64 may be found throughout the specification, including but not limited to the specification at page 13, line 27 through page 14, line 17.

In the Specification

The specification has been amended to correct typographical errors. Specifically, the specification has been amended to add a period at the end of each of a last sentence in paragraphs ending on pages 6 and 13. No new matter has been added.

§101 Rejection of the Claims

Claims 1-60 were rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter.

Specifically, the Office Action states¹ ". . . however no useful, concrete and tangible result is produced such as using the analysis for control."

Applicants do not necessarily agree that claims 1-60 as previously pending in the application were directed to non-statutory subject matter. However, in view of claims 1-60 as amended and as now pending in the application, Applicants respectfully submit that claims 1-60 are directed to statutory subject matter under 35 U.S.C. § 101.

¹ See the Office Action on page 2 under the heading "Claim rejections - 35 USC § 101." in referring to the rejection of claims 1, 11, 18, and 24, and the rejection of claims 2-10, 12-17, 19-23, 25-28 and claims 29, 39, 45, and 51.

By way of illustration, but not limited to this illustration, independent claim 1 as now amended includes, "applying a process control to the route based on the analysis." Applicants submit that at least this amendment, as included in independent claim 1, provides statutory subject matter under 35 U.S.C. § 101.

Further, independent claim 11 includes, "applying a process control to the particular route based on the analysis," and independent claims 18 and 24 include, "applying a process control to the exact route based on the analysis." Applicants submit that at least these amendments, as included in independent claims 11, 18, and 24, provide statutory subject matter under 35 U.S.C. § 101.

In further illustrations, independent claims 29, 39, 45, and 51 include, "responding to the comparison, wherein responding includes triggering a warning when the current conditions depart from the expected conditions." Applicants submit that at least these amendments, as included in independent claims 29, 39, 45, and 51, provide statutory subject matter under 35 U.S.C. § 101.

Because independent claims 1, 11, 18, 24, 29, 39, 45, and 51 all provide statutory subject matter under 35 U.S.C. § 101, Applicants respectfully request reconsideration and withdrawal of the rejection, and allowance of independent claims 1, 11, 18, 24, 29, 39, 45, and 51 and all claims depending from any of these independent claims.

§112 Rejection of the Claims

Claims 9 and 37 were rejected under 35 U.S.C. § 112, second paragraph, for indefiniteness.

Specifically, the Office Action states that the phrase "or the like" renders the claims indefinite.

Applicants have amended both claims 9 and 37 to delete the phrase "and the like" from the claims. Applicants believe these amendments overcome the 35 U.S.C. § 112, second paragraph rejection of claims 9 and 37, and so respectfully request withdrawal of the rejection and allowance of claims 9 and 37.

§102 Rejection of the Claims

Claims 1-14, 17-24, 26-42, 45-51, and 53-60 were rejected under 35 U.S.C. § 102(e) for anticipation by Monette et al. (U.S. Publication 2003/0102367).

Claims 1-14, 17-24, 26-42, 45-51, and 53-60 are not anticipated by Monette et al. because Monette et al. fails to disclose all of the subject matter included in claims 1-14, 17-24, 26-42, 45-51, and 53-60, as arranged in claims 1-14, 17-24, 26-42, 45-51 and 53-60.

By way of illustration, but not limited to this illustration, independent claim 1 as now amended includes:

A method comprising:

detecting conditions in an electronic device fabrication facility including:
measuring fabrication data;

**determining a route a workpiece follows during fabrication,
wherein the route includes at least one operation including a plurality
of subdivisions, each of the plurality of subdivisions operable to
perform a substantially similar operation to the workpiece and
wherein the route includes no more than one of the plurality of
subdivisions;**

**storing measured data relevant to the route the workpiece
followed during fabrication in a data set of the workpiece;**

analyzing the data set of the workpiece;

determining current conditions using the analysis; and

applying a process control to the route based on the analysis.
(Emphasis added).

Thus, independent claim 1 includes determining a route a workpiece follows during fabrication, wherein "the route includes at least one operation including a plurality of subdivisions, each of the plurality of subdivisions operable to perform a substantially similar operation to the workpiece and wherein the route includes no more than one of the plurality of subdivisions." Applicants fail to find at least this subject matter as included in independent claim 1 in Monette et al.

In contrast to the subject matter of independent claim 1, Monette et al. concerns using tags to program machines for printed circuit boards, and to route the printed circuit boards, wherein Monette et al. states:²

[0181] Furthermore, from the previous application, if the PCBs are tagged, the appropriate information could be available from the tag or from an accessed database in order to program the placement machine for a given part number. Once the machine is loaded with the PCB and the appropriate raw material, it programs itself to do the assembly.

[0182] Routing of Parts

[0183] Once the PCBs are tagged, the routing to the next process step can be automated. The PCB can route itself, depending on certain quality or process reports. For example, a decision to go to inspection, rework or the next assembly step can be taken, depending on certain results in the actual process step.

However, there is no teaching in Monette et al. of "determining a route a workpiece follows during fabrication, wherein the route includes at least one operation including a plurality of subdivisions, each of the plurality of subdivisions operable to perform a substantially similar operation to the workpiece and wherein the route includes no more than one of the plurality of subdivisions," as included in independent claim 1.

Further, since Monette fails to teach this subject matter, Monette et al. also fails to teach, "storing measured data relevant to the route the workpiece followed during fabrication," wherein the relevant route includes at least one operation including a plurality of subdivisions, and wherein each of the subdivisions "is operable to perform a substantially similar operation to the workpiece," as included in independent claim 1.

For at least the reasons stated above, Monette et al. fails to disclose all of the subject matter included in independent claim 1, and so independent claim 1 is not anticipated by Monette et al.

In further illustrations of subject matter included in the claims and not disclosed by Monette et al.:

² See Monette et al. at paragraphs 0181-0183

Independent claim 11 includes:

determining a particular route a workpiece followed during fabrication, wherein the particular route is one of a plurality of routes, wherein the particular route and each of the plurality of routes include at least one operation including a plurality of subdivisions, each of the plurality of subdivisions operable to perform a substantially similar operation to the workpiece and wherein the particular route includes no more than one of the plurality of subdivisions;

separately for each of the plurality of routes, measuring fabrication data items relevant to each of the plurality of routes;

storing measured data relevant to each of the plurality of routes, including storing the measured data relevant to the particular route the workpiece followed during fabrication in a data set of the workpiece.

Independent claim 18 includes:

determining an exact route a wafer actually followed during fabrication, wherein the exact route is one of a plurality of routes, wherein the exact route and each of the plurality of routes include at least one operation including a plurality of subdivisions, each of the plurality of subdivisions operable to perform a substantially similar operation to the wafer and wherein the exact route includes no more than one of the plurality of subdivisions;

separately for each of the plurality of routes, measuring fabrication data relevant to each of the plurality of routes;

storing measured data relevant to each of the plurality of routes, including storing the measured data relevant to the exact route the workpiece actually followed during fabrication in a data set of the wafer in a data processing device.

Independent claim 24 includes:

determining an exact route a workpiece actually followed during fabrication, wherein the exact route is one of a plurality of routes, wherein the exact route and each of the plurality of routes include at least one operation including a plurality of subdivisions, each of the plurality of subdivisions operable to perform a substantially similar operation to the wafer and wherein the exact route includes no more than one of the plurality of subdivisions;

separately for each of the plurality of routes, measuring fabrication data relevant to each of the plurality of routes;

storing measured data relevant to each of the plurality of routes, including storing the measured data relevant to the

particular route the workpiece actually followed during fabrication in a data set of the workpiece in a data processing device.

Independent claim 29 includes:

- determining a route a workpiece followed during fabrication, wherein the route includes at least one operation including a plurality of subdivisions, each of the plurality of subdivisions operable to perform a substantially similar operation to the workpiece and wherein the route includes no more than one of the plurality of subdivisions;

- storing measured data relevant to the route the workpiece followed during fabrication in a data set of the workpiece.

Independent claim 39 includes:

- determining each route one or more workpieces follows during fabrication, wherein each route includes at least one operation including a plurality of subdivisions, each of the plurality of subdivisions operable to perform a substantially similar operation to the one or more workpieces and wherein each route includes no more than one of the plurality of subdivisions;

- separately for each route, measuring fabrication data items relevant to each route;

- determining an exact route a particular workpiece followed during fabrication;

- storing measured data items relevant to the exact route the particular workpiece followed during fabrication in a data set of the workpiece.

Independent claim 45 includes:

- determining each route one or more workpieces follows during fabrication, wherein each route includes at least one operation including a plurality of subdivisions, each of the plurality of subdivisions operable to perform a substantially similar operation to the one or more workpiece and wherein each route includes no more than one of the plurality of subdivisions;

- separately for each route, measuring fabrication data items relevant to each route;

- determining an exact route a particular workpiece actually followed during fabrication;

- storing measured data items relevant to the exact route the particular workpiece actually followed during fabrication in a data set of the particular workpiece in a data processing device;

Independent claim 51 includes:

determining each route one or more workpieces follows during fabrication, wherein each route includes at least one operation including a plurality of subdivisions, each of the plurality of subdivisions operable to perform a substantially similar operation to the one or more workpieces and wherein each route includes no more than one of the plurality of subdivisions;
separately for each route, measuring fabrication data items relevant to each route;
determining an exact route a particular workpiece actually followed during fabrication;
storing measured data items relevant to the exact route the particular workpiece actually followed during fabrication in a data set of the particular workpiece in a data processing device;

For reasons analogous to those stated above with respect to independent claim 1, independent claims 11, 18, 24, 29, 39, 45, and 51 each include subject matter not disclosed by Monette et al., and so independent claims 11, 18, 24, 29, 39, 45, and 51 are not anticipated by Monette et al.

Claims 2-10, 12-14, 17, 19-23, 26-28, 30-38, 40-42, 46-50, and 53-60 depend from one of independent claims 1, 11, 18, 24, 29, 39, 45, and 51, and so include all of the subject matter included in the independent claim from which they depend, and more. For at least the reasons stated above with respect to independent claims 1, 11, 18, 24, 29, 39, 45, and 51, claims 2-10, 12-14, 17, 19-23, 26-28, 30-38, 40-42, 46-50, and 53-60 include subject matter not disclosed by Monette et al. Therefore, claims 2-10, 12-14, 17, 19-23, 26-28, 30-38, 40-42, 46-50, and 53-60 are not anticipated by Monette et al.

For at least the reasons stated above, Applicants respectfully request withdrawal of the rejection, and reconsideration and allowance of claims 1-14, 17-24, 26-42, 45-51 and 53-60.

§103 Rejection of the Claims

Claims 15-16, 25, 43-44 and 52 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Monette et al. (U.S. Publication 2003/0102367) in view of Levy (U.S. Publication 2002/0188417).

Claims 15-16, 25, 43-44 and 52 are not obvious over the proposed combination³ of Monette et al. and Levy because the proposed combination of Monette et al. and Levy fails to teach or suggest all of the subject matter included in claims 15-16, 25, 43-44, and 52.

Each of claims 15-16, 25, 43-44, and 52 depends from one of independent claims 11, 24, 39, or 51, and so includes all of the subject matter included in the independent claim from which they depend, and more. Applicants believe they have established for at least the reasons stated above that Monette et al. fails to teach or suggest all of the subject matter included in independent claims 11, 24, 39, and 51, and therefore fails to teach or suggest all of the subject matter included in claims 15-16, 25, 43-44, and 52.

Applicants' representatives fail to find, and the Office Action fails to point out in Levy, the subject matter included in claims 15-16, 25, 43-44, and 52 and missing from Monette et al. Thus, the proposed combination of Monette et al. and Levy fails to teach or suggest all of the subject matter included in claims 15-16, 25, 43-44, and 52, and so claims 15-16, 25, 43-44, and 52 are not obvious in view of the proposed combination of Monette et al. and Levy.

For at least the reasons stated above, Applicants respectfully request withdrawal of the rejection, and reconsideration and allowance of claims 15-16, 25, 43-44, and 52.

Reservation of Rights

In the interest of clarity and brevity, Applicants may not have addressed every assertion made in the Office Action. Applicants' silence regarding any such assertion does not constitute any admission or acquiescence. Applicants reserve all rights not exercised in connection with this response, such as the right to challenge or rebut any tacit or explicit characterization of any reference or of any of the present claims, the right to challenge or rebut any asserted factual or legal basis of any of the rejections, the right to swear behind any cited reference such as provided under 37 C.F.R. § 1.131 or otherwise, or the right to assert co-ownership of any cited reference. Applicants do not admit that any of the cited references or any other references of record are relevant to the present claims, or that they constitute prior art. To the extent that any rejection or assertion is based upon the Examiner's personal knowledge, rather than any objective evidence of record as manifested by a cited prior art reference, Applicants timely object to such reliance

³ Applicants do not admit or agree that any combinations based on Monette et al. and Levy are possible or could be formed.

on Official Notice, and reserve all rights to request that the Examiner provide a reference or affidavit in support of such assertion, as required by MPEP § 2144.03. Applicants reserve all rights to pursue any cancelled claims in a subsequent patent application claiming the benefit of priority of the present patent application, and to request rejoinder of any withdrawn claim, as required by MPEP § 821.04.

CONCLUSION

Applicants respectfully submit that the claims are in condition for allowance, and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicants' attorney at (612) 371-2132 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being filed using the USPTO's electronic filing system EFS-Web, and is addressed to: MS Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this 29 day of May 2007.

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